

5/21

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	23314
<b>Description:</b> Doubler		<b>Part Number:</b>	D3302-3
<b>Dwg:</b> D3302 Rev. <i>AS 31</i>		<b>Qty:</b>	20
		Page 1 of 1	

*Fresh  
01.12.14*

Step	Location	Procedure	By	Date	Qty
1	DC	Issue Traveler <b>Note: To be made in multiples of 10</b>	<i>PH</i>	05.05.13	20
2	MV	Cut blank: <del>14.300"</del> x 9.100" <i>14.550"</i> Material: 6061-T6 (QQ-A-250/11) 0.063" thick (M6061T6S.063) Identify for D3302-3 Batch: <i>M17400</i>	<i>1/SA</i>	05.05.13	20
3	MV	Machine as per Folio FA450 and Dwg D3302 Stack of 10 Identify as D3302-3	<i>Er</i>	05/05/16	20
4	QC2	Inspect parts as they come off the CNC machine	<i>EP</i>	05/05/16	20
5	QC8	Second check	<i>Er</i>	05.05.17	20
6	GA	Deburr break all unmarked sharp edges 0.005 to 0.010	<i>mu</i>	05-05-25	20
7	GB	Form as per Dwg D3302	<i>J</i>	05-07-05	20
8	QC5	Inspect work to Step 7	<i>SB</i>	05/07/05	20
9	FP	Chemical Conversion Coat as per QSI 005 4.1	<i>FT</i>	05.07.06	20
10	QC3	Inspect Chemical Conversion Coat	<i>J</i>	05-07-11	20
11	ST	Identify and Stock	<i>CL</i>	05/07/11	20
12	AC	Cost / part <i>16.59</i>	<i>AR</i>	05/07/15	20
13	DC	Close W/O <i>15.53</i> Inspect Level 21	<i>PH</i>	05/07/12	20

*pto*

Rev	Date	Change	Revised By	Approved
A	04.09.02	New issue	KJ/JLM	<i>[Signature]</i>

**RELEASED**  
*[Signature]* 04.09.07

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR: 23314		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			
05/07/16	3	<del>10 piece</del> + stack scrap. the length was too short of .040" .032"	CP 05.05.16	Acceptable this fine as long as final bend dimensions are within tolerance	 05-07-12	 0507.12		 19 05-16

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: machined parts NCR: Yes No DQA:  Date: 05/07/12

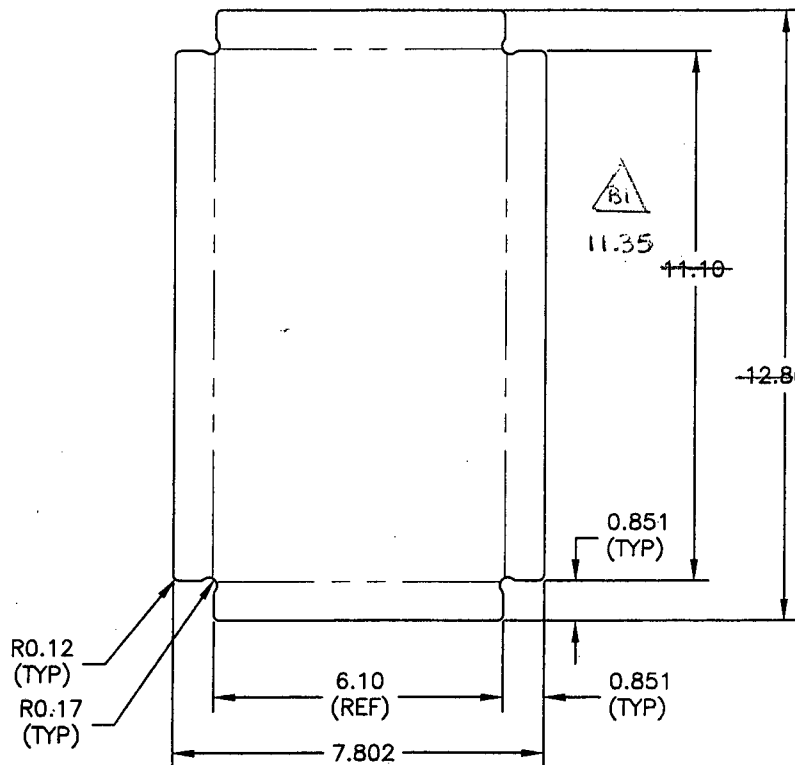
NOTE: Date & initial all entries QA: N/C Closed:  Date: 05.07.12



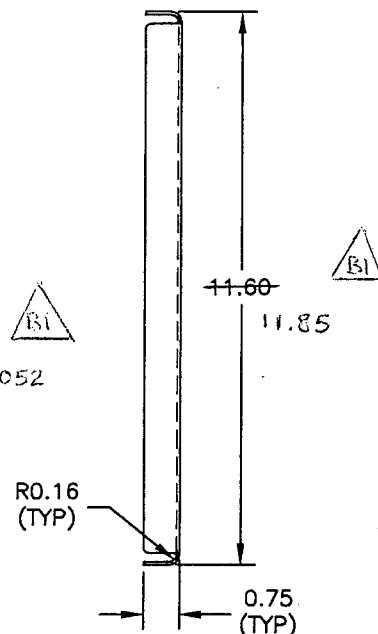
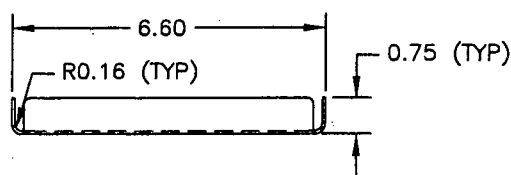


DESIGN T#	DRAWN BY T#	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED T#	APPROVED T#	DRAWING NO. D3302	REV. B SHEET 1 OF 4
DATE 04.11.18	TITLE DOUBLER		SCALE 1:4
A	04.07.06	NEW ISSUE	
B	04.11.18	REMOVE HOLES	
Bi	RF 04.12.15	ADDED 0.25" TO THE LENGTH FOR -1/-3	
B2	RF 05.03.21	7.25 WAS 7.34 ; 8.952 WAS 9.042 ; 7.75 WAS 7.84 FOR D3302-3	

RELEASED  
04.11.23



**D3302-1 FLAT PATTERN**



**D3302-1 DOUBLER BEND DETAIL**

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SUBMIT TO THE ELEMENT  
WITHOUT NOTICE

WORK ORDER

NO. 23314

**D3302-1 NOTES:**

- 1) MATERIAL: 6061-T6 (QQ-A-250/11) 0.063 THICK (REF. DART SPEC. M6061T6S.063)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) IDENTIFY WITH DART P/N & B/N USING FINE POINT PERMANENT MARKER

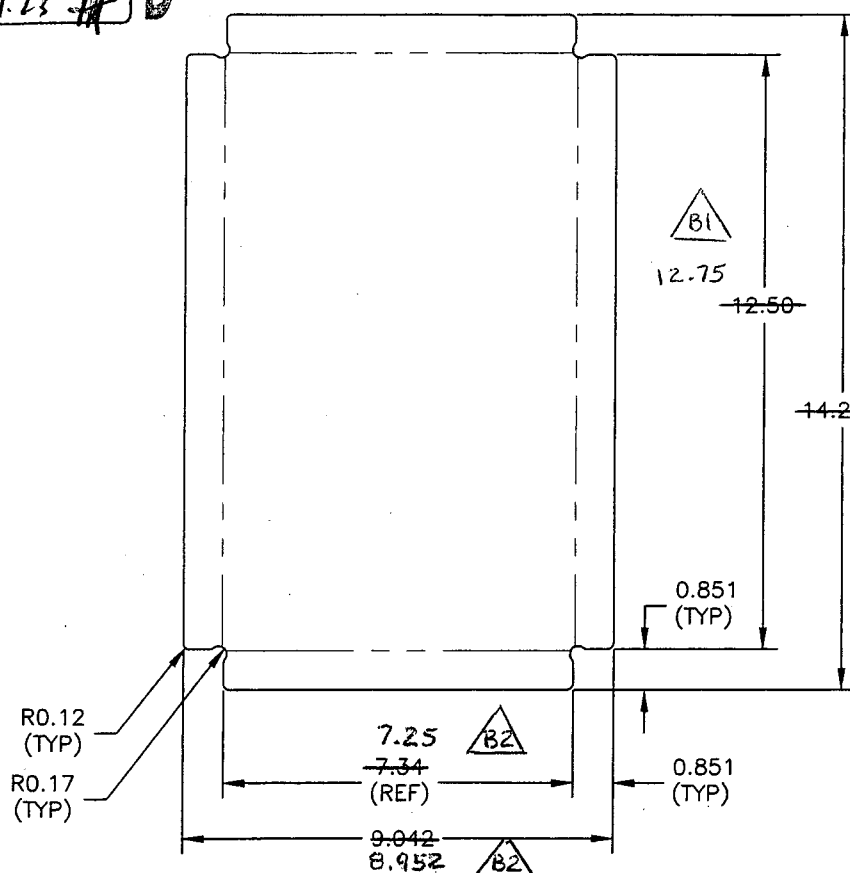
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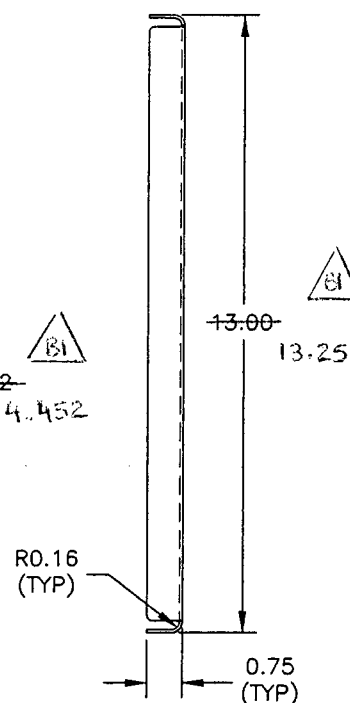


DESIGN #	DRAWN BY #	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
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DATE 04.11.18		TITLE DOUBLER	SCALE 1:4

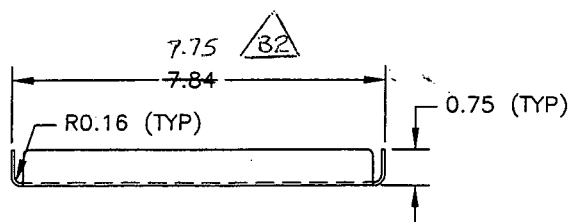
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**D3302-3 FLAT PATTERN**



**D3302-3 DOUBLER  
BEND DETAIL**



**D3302-3 NOTES:**

- 1) MATERIAL: 6061-T6 (QQ-A-250/11) 0.063 THICK (REF. DART SPEC. M6061T6S.063)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) IDENTIFY WITH DART P/N & BATCH USING FINE POINT PERMANENT MARKER

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NO. 23314

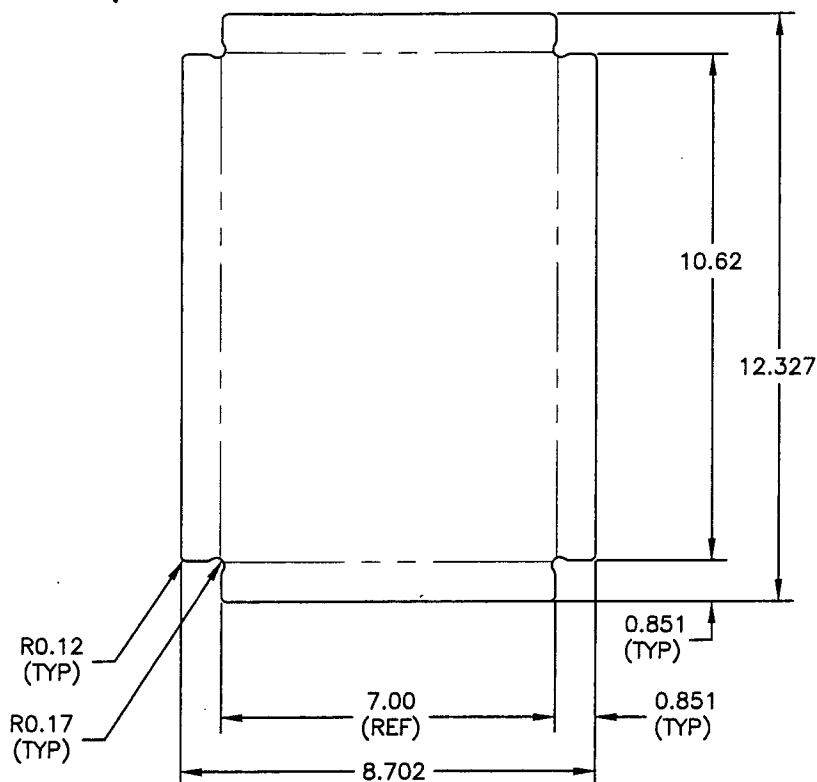
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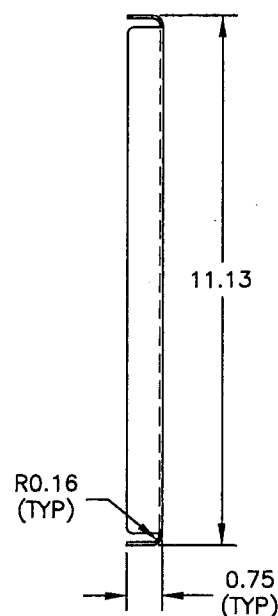
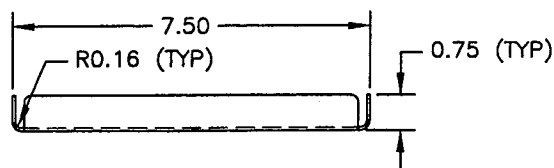


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CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3302	REV. B SHEET 3 OF 4
DATE 04.11.08	TITLE DOUBLER		SCALE 1:4

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04.11.23 [Signature]



**D3302-5 FLAT PATTERN**



**D3302-5 DOUBLER  
BEND DETAIL**

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SHEET 3 OF 4  
NOTICE

WORK ORDER

NO 23314

**D3302-5 NOTES:**

- 1) MATERIAL: 6061-T6 (QQ-A-250/11) 0.063 THICK (REF. DART SPEC. M606TT6S.063)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) IDENTIFY WITH DART P/N & B/N USING FINE POINT PERMANENT MARKER

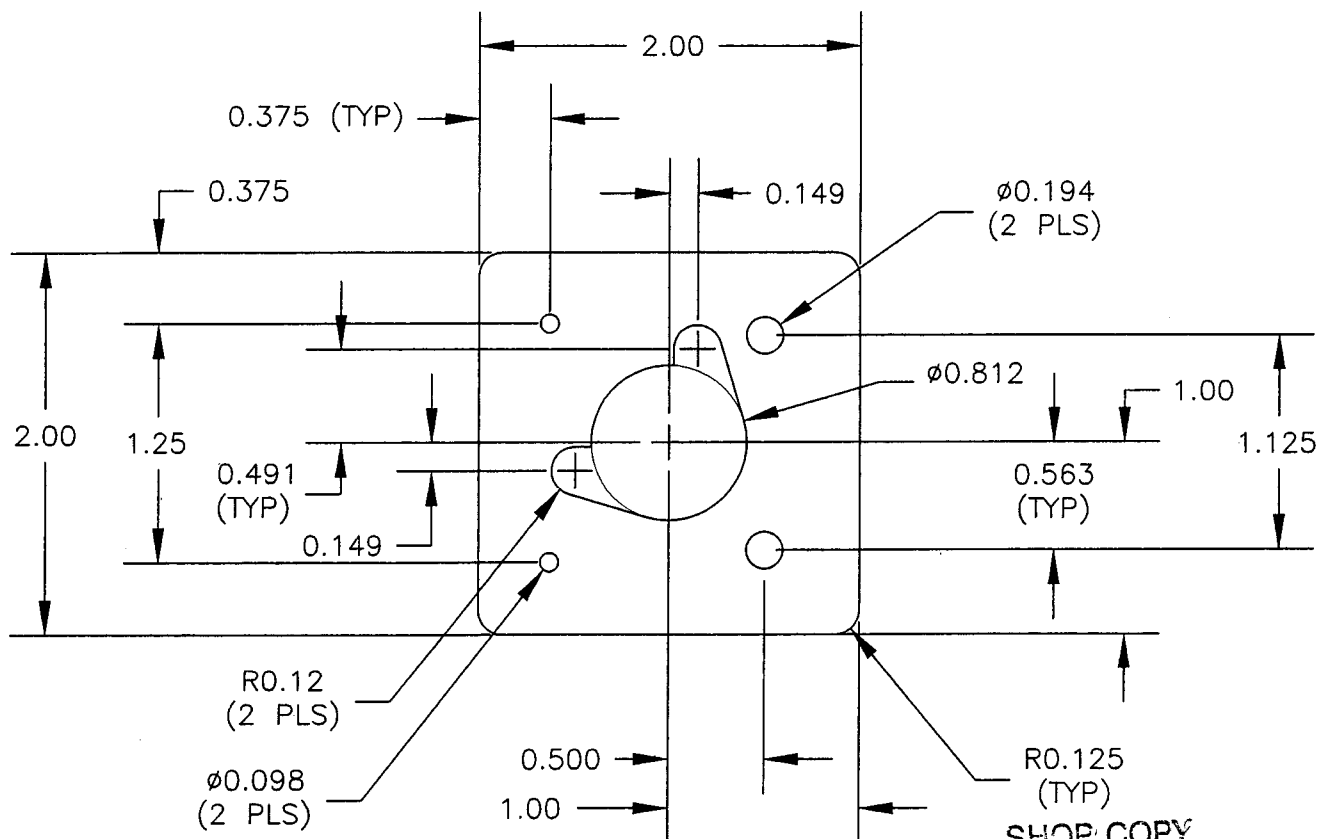
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CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3302	REV. B SHEET 4 OF 4
DATE 04.11.18	TITLE DOUBLER		SCALE 1:1

RELEASED  
04.11.23



**D3302-7**

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**D3302-7 NOTES:**

- 1) MATERIAL: 5052-H32 OR 6061-T6 (QQ-A-250/8 OR QQ-A-250/11) 0.040 THICK (REF. DART SPEC. M5052H32S.040)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) IDENTIFY WITH DART P/N & B/N USING FINE POINT PERMANENT MARKER

WORK ORDER

NO. 23314

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# Job Costing Report

Dart Aerospace Ltd.  
Hawkesbury

May 13, 2005  
10:40 am

Work Order No : 0023314  
Project Name : D3302-3  
Project For : WK521  
Work Order Type : Main  
Main WO Number :  
House Part Number : D3302-3  
Description : Doubler  
Manufactured : Yes  
Amount Req'd : 20  
Amount Done : 0  
Start Date : 05-13-05  
Est Finish Date : 05-20-05  
Act Finish Date :  
Drawings Req'd : No  
Ok for Approval :  
Approval Rec'd :

Department Code:  
Burden Flags : NNNNNNNN  
WO Status : Open  
Invoice State : Not Invoiced  
Invoice Date :  
Invoice Number :  
Invoice Amount : 0.00  
Order Entry No :  
OE Value : 0.00  
Est Mark Up : 0.000%  
Actual Mark Up : 0.000%  
\$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost	0.00	0.00	0.00	0.00	0.00
Engineering Hours	0.00	0.00	0.00		
Engineering Cost	0.00	0.00	0.00	0.00	0.00
Production Hours	0.00	0.00	0.00		
Production Cost	0.00	0.00	0.00	0.00	0.00
Packaging Hours	0.00	0.00	0.00		
Packaging Cost	0.00	0.00	0.00	0.00	0.00
OverHead Hours	0.00	0.00	0.00		
OverHead Cost	0.00	0.00	0.00	0.00	0.00
CNC Hours	0.00	0.00	0.00		
CNC	0.00	0.00	0.00	0.00	0.00
Misc. Hours	0.00	0.00	0.00		
Misc.	0.00	0.00	0.00	0.00	0.00
Burden	0.00	0.00	0.00		
Total Cost	0.00	0.00	0.00		
Mark up	0.000	0.000			
Selling Cost	0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done	0.00	0.00
Profits/(Loss)	0.00	0.00